

$$x = r = -\frac{b}{ra} \rightarrow -\frac{1}{ra-r} = r \rightarrow ra-r = -1 \rightarrow ra = r-1 \rightarrow a = \frac{r-1}{r}$$

$$y = -\frac{1}{x} x^2 + x + r = 0$$

$$y = x^2 - x - 1r = 0$$

$$\begin{aligned} x_1 &= 4 \quad \checkmark \quad x > 0 \text{ چون} \\ x_2 &= -2 \end{aligned}$$

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$$\Delta > 0 \rightarrow ra - r^2 > 0 \rightarrow ra > r^2$$

$$\frac{ra}{r} > r^2 \rightarrow -\frac{a}{r} < m < \frac{a}{r}$$

$$\Delta \wedge \Delta = -\frac{a}{r} < m < 0$$

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$$S = \frac{r\sqrt{a}}{r} + \frac{r\sqrt{a}}{r} = \frac{a}{r} = r \quad P = \left(\frac{r\sqrt{a}}{r}\right)\left(\frac{r\sqrt{a}}{r}\right) = \frac{a-a}{a} = \frac{r}{a}$$

$$x^2 - 5x + P = x^2 - 2x + \frac{r}{a} = 0 \quad \times 9 \rightarrow 9x^2 - 18x + r = 0$$

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$$rx^2 - 18x + m + r = 0$$

$$S = \frac{1}{r} = r$$

$$P = \frac{m+r}{r}$$

$$\alpha + \beta = r \rightarrow \beta = r - \alpha$$

$$r\alpha^2 + \beta^2 = 1r \quad \beta = r - \alpha$$

$$r\alpha^2 + (r - \alpha)^2 = 1r \rightarrow r\alpha^2 - 18\alpha + r = 0 \rightarrow (r\alpha - r)^2 = 0$$

$$\beta = r - \alpha = r$$

$$\alpha = 1, \beta = r$$

$$P = \frac{m+r}{r} = r \times 1 \rightarrow 9 = m + r \rightarrow m = r$$

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$$C = a, S(r, 9) \xrightarrow{(r, 9)} ra + rb + a = 9 \rightarrow ra + rb = r \quad \underline{ra = -b}$$

$$\begin{aligned} -\frac{b}{ra} = r &\rightarrow ra = -b \\ &\downarrow b = r \\ &a = -1 \end{aligned}$$

$$b = r$$

$$f(x) = -x^2 + 9x + a > 0 \xrightarrow{x-1} x^2 - 18x - a < 0$$

$$x \in (-1, a)$$

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$$S = \frac{V}{\alpha} \quad P = \frac{q\beta}{\alpha} \rightarrow \alpha\beta = \frac{q\beta}{\alpha} \rightarrow \alpha = \frac{q}{\alpha} \rightarrow \alpha^2 = q \rightarrow \alpha = \sqrt{q} - r$$

$$\alpha + \beta = \frac{V}{\alpha} \rightarrow \beta = \frac{V}{\alpha} - \alpha \quad \begin{matrix} \alpha = r & \beta = \frac{V}{r} - r = -\frac{r}{r} \\ \alpha = -r & \beta = -\frac{V}{r} + r = \frac{r}{r} \end{matrix}$$

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$$\frac{1}{\alpha} + \frac{1}{\beta} = -\frac{1}{r} + \frac{1}{\frac{r}{r}} = -\frac{1}{r} + \frac{r}{r} = \frac{V}{q}$$

$$S = -m \quad P = -rm \rightarrow m = -S \xrightarrow{S=\alpha+\beta} \beta = S - \alpha \quad \alpha^2 - m\beta = \alpha^2 - (-S)(S - \alpha)$$

$$= \alpha^2 + S^2 - S\alpha = \Lambda \quad (1)$$

$$m = -S \quad \alpha\beta = -rm \rightarrow \alpha\beta = rS \rightarrow \alpha(S - \alpha) = rS$$

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$$\rightarrow \alpha^2 - S\alpha + rS = 0 \rightarrow \alpha^2 - \alpha S + rS = 0 \quad \text{یا } (\alpha^2 + S^2 - S\alpha) - (\alpha^2 + \alpha S + rS) = \Lambda = 0$$

$$\rightarrow S^2 - rS - \Lambda = 0 \quad \begin{matrix} S = F \rightarrow P = rS = \Lambda \rightarrow r^2 - rF + \Lambda = 0 \rightarrow \Delta < 0 \quad \bar{O} \bar{O} \bar{E} \\ S = -r \rightarrow P = -F \rightarrow r^2 + r^2 - F = 0 \rightarrow \Delta > 0 \quad \bar{O} \bar{O} \bar{O} \end{matrix}$$

$$-\frac{\Delta}{F\alpha} = \Lambda \rightarrow \frac{r^2m^2 + r\Lambda m - 14}{Fm} = \Lambda \rightarrow r^2m = r^2m^2 + r\Lambda m - 14 \rightarrow r^2m^2 - Fm - 14 = 0$$

$$m^2 - Em - r^2 = 0$$

$$m = -r \rightarrow -r^2 + r^2 + 14 = 0$$

$$r^2 + r^2 - 14 = 0$$

$$\begin{matrix} -4 \\ r \end{matrix} = r \quad \begin{matrix} -4 \\ -r \end{matrix} = -1 \quad K = 3$$

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$$C = F \quad S(r, 4) \xrightarrow{(r, 4)} F_a + r b + F = 4 \rightarrow F_a + r b = r \xrightarrow{F_a = -b} b = r$$

$$-\frac{b}{r\alpha} = r \rightarrow F_a = -b \xrightarrow{b=r} a = -\frac{r}{r} \quad f(x) = -\frac{1}{r}x^2 + rx + F = x^2 - x - r$$

$$x^2 - x - r = 0 \quad \begin{matrix} x_1 = r \\ x_2 = -1 \end{matrix}$$

$$\frac{1}{r} - 1 = -\frac{1}{r}$$

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$$x = r \xrightarrow{\text{در جایگزینی}} F - \Lambda a - \Lambda + r^2 + 9a + r = 0 \rightarrow r^2 - r\alpha - 1 = 0$$

$$\alpha^2 - r\alpha - r = 0$$

$$a = \frac{r}{r} = 1$$

$$a = -\frac{1}{r}$$

$$S = F_a + F = \frac{r}{x_1} + x_r \rightarrow x_r = F_a + r$$

$$a = 1 \rightarrow x_r = F(1) + r = 4$$

$$a = -\frac{1}{r} \rightarrow x_r = F(-\frac{1}{r}) + r = \frac{r}{r}$$

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